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## CURRENT INDUSTRIAL REPORTS



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# Manufacturers' Shipments, Inventories, and Orders

May 1972

U.S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

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## SUMMARY

New orders for manufactured products in May on a seasonally adjusted basis showed no change. Shipments increased \$240 million or 0.4 percent to \$60.98 billion from \$60.74 billion in April. Unfilled orders increased \$230 million or 0.3 percent to \$77.76 billion at the end of May. Manufacturers' inventories increased \$410 million to \$102.83 billion at the end of May. The inventories to shipments ratio was unchanged at 1.69.

For the 3 months ending in May, the average month-to-month change in new orders was a 0.9 percent increase compared with a 1.1 percent increase for the 3 months ending in February and a 0.8 percent increase for the 3 months ending in November.

## NEW ORDERS

Revised figures indicate that new orders for durable goods increased \$90 million or 0.3 percent to \$33.62 billion as a large decrease in transportation equipment, particularly in the defense sector, was offset by increases in primary metals; stone, clay, and glass; and machinery. New orders for capital goods declined \$450 million due primarily to a decline in the defense portion of \$430 million.

## SHIPMENTS

Shipments of durable goods increased \$290 million or 0.9 percent to \$33.40 billion. Shipments of nondurable goods decreased \$50 million or 0.2 percent to \$27.59 billion.

## UNFILLED ORDERS

Unfilled orders for durable goods increased \$220 million to \$74.22 billion at the end of May as increases in primary metals and electrical machinery offset decreases in all segments of transportation equipment.

## INVENTORIES

Inventories of durable goods manufacturers increased \$460 million as inventories of nondurable goods decreased \$50 million. At the all manufacturing level, materials and supplies decreased \$20 million, work in process increased \$200 million, and finished goods increased \$210 million.

## SCHEDULE RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for June is schedule for release on July 24, 1972 and the full report is scheduled for release on August 2, 1972.

The data for April and prior months in this report are based on a revision of the monthly M3 series on shipments and orders. The monthly series has been benchmarked to the Annual Survey of Manufactures for the years 1966 to 1970 and new seasonal factors calculated. The revised figures for 1966 through March 1972, will be published on June 28 in a report entitled M3-1.4, Manufacturers' Shipments, Inventories, and Orders: 1966-1972

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Industry Division, Washington D.C. 20233.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment <sup>1</sup>		
	May 1972 <sup>P</sup>	Apr. 1972 <sup>F</sup>	Mar. 1972	May 1972 <sup>P</sup>	Apr. 1972 <sup>F</sup>	May 1971	May 1972 <sup>P</sup>	Apr. 1972 <sup>F</sup>	Mar. 1972	May 1972 <sup>P</sup>	Apr. 1972 <sup>F</sup>	May 1971
All manufacturing industries:												
Total.....	60,985	60,741	59,894	61,516	61,527	55,600	102,834	102,428	102,450	103,787	103,251	102,794
Total, excluding transportation.....	53,506	53,345	52,796	53,654	53,894	48,800	87,125	86,892	86,897	88,143	87,626	87,208
Durable goods industries, total.	33,397	33,103	32,242	34,194	33,887	30,338	67,031	66,575	66,604	67,680	67,181	67,439
Stone, clay, and glass products.	2,087	1,929	1,969	2,152	1,968	1,669	2,270	2,272	2,234	2,355	2,339	2,370
Primary metals, total.....	4,973	5,032	4,933	5,359	5,418	5,484	9,594	9,553	9,506	9,542	9,534	9,157
Blast furnaces, steel mills.	2,356	2,397	2,380	2,591	2,636	2,766	5,294	5,247	5,194	5,231	5,179	4,969
Nonferrous metals.....	1,922	1,957	1,882	2,059	2,065	2,110	3,442	3,446	3,459	3,435	3,480	3,301
All other primary metals....	695	678	671	709	717	608	858	860	853	876	875	887
Fabricated metal products, total.....	3,429	3,442	3,333	3,447	3,479	3,260	7,212	7,122	7,289	7,364	7,231	7,631
Metal cans, barrels, and drums.....	459	459	437	461	452	360	723	729	768	769	746	794
Machinery, except electrical, total.....	5,574	5,549	5,328	5,690	5,764	4,866	13,398	13,390	13,356	13,534	13,517	13,953
Engines and turbines.....	453	379	412	464	386	389	1,263	1,254	1,230	1,274	1,258	1,152
Farm machinery and equipment.	572	542	536	594	643	445	1,116	1,124	1,097	1,127	1,144	1,102
Construction, mining, and material handling equipment.	865	906	863	890	960	808	2,498	2,488	2,536	2,528	2,523	2,619
Metalworking machinery.....	419	413	414	417	399	320	1,139	1,143	1,142	1,148	1,150	1,188
General industrial machinery	481	430	435	486	440	369	1,145	1,149	1,134	1,168	1,168	1,221
Electrical machinery, total...	4,678	4,783	4,695	4,532	4,613	4,015	9,997	9,888	9,872	10,274	10,018	10,203
Electrical transmission and distribution equipment and industrial apparatus.....	897	923	919	927	930	815	2,192	2,179	2,221	2,217	2,196	2,165
Household appliances.....	663	675	630	667	656	528	1,049	1,029	1,039	1,094	1,060	1,194
Radio and TV.....	423	444	403	294	308	281	830	799	770	925	831	803
Communication equipment.....	1,187	1,217	1,228	1,191	1,254	1,194	2,949	2,923	2,958	2,996	2,949	2,960
Transportation equipment, total	7,479	7,396	7,098	7,832	7,633	6,800	15,709	15,536	15,553	15,644	15,625	15,586
Motor vehicles and parts....	4,608	4,720	4,469	4,906	4,939	4,227	4,136	4,086	4,091	4,062	4,082	4,177
Aircraft, missiles, and parts.....	1,957	1,839	1,739	1,976	1,818	1,741	8,948	8,951	8,965	8,987	9,001	9,371
Shipbuilding and railroad equipment.....	614	524	570	616	538	565	1,990	1,895	1,886	1,952	1,910	1,484
Instruments and related products, total.....	1,011	1,044	995	998	1,016	965	2,534	2,510	2,507	2,582	2,558	2,453
Scientific and engineering..	501	539	508	497	539	485	1,484	1,471	1,454	1,515	1,490	1,428
All other instruments and related products.....	510	505	487	501	477	480	1,050	1,039	1,053	1,067	1,068	1,025
All other durable goods industries.....	4,166	3,928	3,891	4,184	3,996	3,279	6,317	6,304	6,287	6,385	6,339	6,086
Nondurable goods industries, total.....	27,588	27,638	27,652	27,322	27,640	25,262	35,803	35,853	35,846	36,107	36,070	35,355
Food and kindred products, total.....	9,116	9,026	9,077	8,973	8,832	8,314	8,989	9,111	9,109	8,804	8,949	8,652
Meat products.....	2,156	2,192	2,141	2,162	2,120	2,019	809	805	779	834	837	834
Fats and oils.....	470	458	432	475	466	501	724	720	707	714	735	666
Tobacco products.....	510	501	519	519	489	477	2,231	2,260	2,240	2,208	2,310	2,102
Textile mill products.....	2,312	2,338	2,331	2,261	2,277	1,966	3,799	3,780	3,728	3,944	3,881	3,684
Paper and allied products, total.....	2,340	2,342	2,317	2,329	2,349	2,080	2,755	2,731	2,747	2,794	2,763	2,780
Pulp, paper, etc.....	935	930	918	931	941	858	1,050	1,045	1,048	1,059	1,056	1,073
Paperboard containers.....	724	706	720	727	723	627	824	823	830	833	828	819
All other paper containers..	681	706	679	671	685	595	881	863	869	902	879	888
Chemicals and allied products, total.....	4,575	4,680	4,671	4,761	4,938	4,463	6,679	6,648	6,691	6,705	6,728	6,781
Industrial chemicals, except pigments.....	1,412	1,412	1,412	1,482	1,518	1,399	1,892	1,888	1,879	1,871	1,898	1,884
Drugs, soap, and toiletries.	1,413	1,436	1,423	1,308	1,396	1,210	2,111	2,082	2,117	2,151	2,105	2,116
Petroleum and coal products...	2,254	2,359	2,318	2,239	2,321	2,101	2,216	2,199	2,185	2,201	2,168	2,213
Rubber and plastics products, n.e.c.....	1,459	1,464	1,478	1,503	1,540	1,414	2,276	2,230	2,199	2,283	2,273	2,130
All other nondurable goods industries.....	5,022	4,928	4,941	4,737	4,894	4,447	6,858	6,894	6,947	7,168	6,998	7,013

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

(Millions of dollars)

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment <sup>1</sup>		
	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	Mar. 1972	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	May 1971	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	Mar. 1972	May 1972	Apr. 1972 <sup>r</sup>	May 1971
All manufacturing industries:												
Total.....	61,215	61,209	60,614	60,811	61,974	53,523	77,762	77,528	77,059	77,707	78,409	75,015
Total, excluding transportation.....	54,208	53,568	53,578	53,714	54,270	47,316	53,599	52,893	52,669	53,823	53,795	51,946
Durable goods industries, total.	33,616	33,529	32,845	33,443	34,256	28,269	74,224	74,005	73,578	74,104	74,850	71,980
Primary metals, total.....	5,392	4,999	5,243	5,334	5,466	4,367	6,769	6,350	6,383	7,056	7,080	6,958
Blast furnaces, steel mills.	2,657	2,343	2,547	2,545	2,661	1,857	3,907	3,606	3,660	4,173	4,219	4,218
Nonferrous metals.....	2,019	1,994	2,004	2,061	2,104	1,924	1,971	1,874	1,837	1,981	1,979	1,846
Fabricated metal products.....	3,375	3,395	3,413	3,391	3,492	3,188	9,573	9,626	9,673	9,609	9,664	10,031
Machinery, except electrical, total.....	5,636	5,654	5,574	5,686	5,940	4,760	13,217	13,156	13,051	13,279	13,282	12,251
Engines and turbines.....	455	431	481	447	458	427	3,574	3,572	3,520	3,580	3,597	3,310
Construction, mining, and material handling equipment.	848	904	910	877	977	773	2,429	2,446	2,448	2,480	2,492	2,246
Metalworking machinery.....	448	427	458	449	424	299	1,036	1,008	994	1,033	1,001	970
General industrial machinery.	451	434	420	449	444	378	1,266	1,296	1,292	1,281	1,318	1,165
Electrical machinery, total...	4,912	4,833	4,694	4,598	4,606	3,801	14,231	13,999	13,948	13,998	13,933	13,589
Electrical transmission and distribution equipment and industrial apparatus.....	874	981	947	923	981	867	3,870	3,892	3,834	3,889	3,894	3,816
Household appliances.....	654	678	626	660	652	525	120	130	127	126	134	140
Radio and TV.....	449	483	426	341	334	306	579	553	514	569	522	458
Communication equipment.....	1,308	1,148	1,211	1,102	1,137	991	5,996	5,877	5,945	5,745	5,833	5,529
Transportation equipment, total.....	7,007	7,641	7,036	7,097	7,704	6,207	24,163	24,635	24,390	23,884	24,614	23,069
Aircraft, missiles, and parts.....	1,814	2,081	1,891	1,550	1,946	1,187	14,410	14,553	14,311	14,226	14,649	14,174
Shipbuilding and railroad equipment.....	419	530	425	512	559	516	5,306	5,500	5,494	5,284	5,387	5,216
All other durable goods industries.....	7,294	7,007	6,885	7,337	7,048	5,946	6,271	6,239	6,133	6,278	6,277	6,082
Nondurable goods industries, total.....	27,599	27,680	27,769	27,368	27,718	25,254	3,538	3,523	3,481	3,603	3,559	3,035
Industries with unfilled orders.....	7,529	7,533	7,628	7,465	7,525	6,570	3,538	3,523	3,481	3,603	3,559	3,035
Industries without unfilled orders.....	20,070	20,147	20,141	19,903	20,193	18,684	-	-	-	-	-	-

- Represents zero.

<sup>p</sup> Preliminary.<sup>r</sup> Revised.<sup>1</sup> Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	May 1972 <sup>P</sup>	Apr. 1972 <sup>r</sup>	Mar. 1972	May 1972 <sup>P</sup>	Apr. 1972 <sup>r</sup>	May 1971	May 1972 <sup>P</sup>	Apr. 1972 <sup>r</sup>	Mar. 1972	May 1972 <sup>P</sup>	Apr. 1972 <sup>r</sup>	May 1971
	Shipments						Total inventories					
All manufacturing industries, total..	60,985	60,741	59,894	61,516	61,527	55,600	102,834	102,428	102,450	103,787	103,251	102,794
Durable goods industries, total.....	33,397	33,103	32,242	34,194	33,887	30,338	67,031	66,575	66,604	67,680	67,181	67,439
Nondurable goods industries, total.....	27,588	27,638	27,652	27,322	27,640	25,262	35,803	35,853	35,846	36,107	36,070	35,355
Industry groups arranged by market categories:												
Home goods and apparel.....	6,292	6,231	6,055	5,855	5,964	5,102	11,055	10,960	10,957	11,629	11,213	11,059
Consumer staples.....	11,799	11,662	11,764	11,555	11,459	10,679	13,749	13,901	13,916	13,604	13,811	13,414
Equipment and defense products, except automotive.....	9,009	8,836	8,635	9,107	9,058	7,964	26,675	26,523	26,562	26,900	26,736	27,066
Automotive equipment.....	5,362	5,473	5,230	5,706	5,760	4,911	5,503	5,413	5,419	5,444	5,470	5,423
Construction materials, supplies, and intermediate products.....	5,557	5,389	5,370	5,757	5,547	4,935	8,192	8,118	8,172	8,329	8,282	8,285
Other materials and supplies and intermediate products.....	22,966	23,150	22,840	23,536	23,739	22,009	37,660	37,513	37,424	37,881	37,739	37,547
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	2,960	2,883	2,758	2,821	2,738	2,243	5,098	5,029	5,003	5,308	5,140	5,110
Capital goods industries.....	10,506	10,320	10,138	10,602	10,421	9,322	29,981	29,824	29,858	30,230	30,048	30,519
Nondefense.....	8,746	8,574	8,404	8,853	8,677	7,464	24,318	24,208	24,226	24,540	24,415	24,976
Defense.....	1,760	1,746	1,734	1,749	1,744	1,858	5,663	5,616	5,632	5,690	5,633	5,543
	New orders						Unfilled orders					
All manufacturing industries, total..	61,215	61,209	60,614	60,811	61,974	53,523	77,762	77,528	77,059	77,707	78,409	75,015
Durable goods industries, total.....	33,616	33,529	32,845	33,443	34,256	28,269	74,224	74,005	73,578	74,104	74,850	71,980
Nondurable goods industries, total.....	27,599	27,680	27,769	27,368	27,718	25,254	3,538	3,523	3,481	3,603	3,559	3,035
Industry groups arranged by market categories:												
Home goods and apparel.....	6,392	6,290	6,138	5,982	6,020	5,206	2,522	2,421	2,358	2,493	2,372	2,083
Consumer staples.....	11,800	11,666	11,765	11,553	11,449	10,674						
Equipment and defense products, except automotive.....	8,835	9,012	8,522	8,556	9,128	7,222	41,089	41,398	41,224	40,624	41,376	39,134
Automotive equipment.....	5,228	5,470	5,161	5,501	5,682	4,921						
Construction materials, supplies, and intermediate products.....	5,525	5,355	5,497	5,706	5,597	4,868	9,374	9,406	9,440	9,460	9,511	9,749
Other materials and supplies and intermediate products.....	23,435	23,416	23,531	23,513	24,098	20,632	24,777	24,303	24,037	25,130	25,150	24,049
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	3,046	2,945	2,829	2,923	2,762	2,320	2,062	1,977	1,915	2,015	1,915	1,689
Capital goods industries.....	10,296	10,744	10,344	9,933	10,717	8,423	44,522	44,733	44,308	44,138	44,803	42,820
Nondefense.....	8,768	8,785	8,528	8,708	8,973	7,160	25,523	25,502	25,291	25,602	25,746	25,633
Defense.....	1,528	1,959	1,816	1,225	1,744	1,263	18,999	19,231	19,017	18,536	19,057	17,187

<sup>1</sup>During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. <sup>2</sup>Preliminary. <sup>3</sup>Revised. <sup>4</sup>Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. <sup>5</sup>The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Capital goods industries - The capital goods industries series is comparable to the previous Producers' Capital Goods and the Defense Products (old series) categories.

Nondefense industries - Machinery, except electrical machinery (excluding household appliances and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft, aircraft parts, and ordnance.

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. Thus, it differs from the old series in that it includes defense activity in shipbuilding and excludes nondefense work in ordnance, communication, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1966-1971	
	Apr.- May 1972	Mar.- Apr. 1972	Feb.- Mar. 1972	3 months			12 months	Average rise	Average decline
				Feb. 1972- May 1972	Nov. 1971- Feb. 1972	Aug. 1971- Nov. 1971			
Shipments:									
All manufacturing industries.....	+0.4	+1.4	+1.9	+1.2	+1.0	+0.7	+0.8	+1.2	-1.1
Durable goods industries, total.....	+0.9	+2.7	+2.0	+1.9	+1.4	+0.5	+1.0	+1.9	-1.7
Nondurable goods industries, total.....	-0.2	-0.1	+1.8	+0.5	+0.7	+1.1	+0.7	+0.8	-0.5
Total inventories:									
All manufacturing industries.....	+0.4	0.0	+0.3	+0.2	+0.2	+0.1	+0.1	+0.5	-0.2
New orders:									
All manufacturing industries.....	0.0	+1.0	+1.8	+0.9	+1.1	+0.8	+1.0	+1.8	-1.4
Durable goods industries, total.....	+0.3	+2.1	+1.9	+1.4	+1.4	+0.6	+1.4	+2.8	-2.7
Nondurable goods industries, total.....	-0.3	-0.3	+1.6	+0.3	+0.8	+1.2	+0.7	+0.9	-0.5
Unfilled orders:									
Durable goods industries, total.....	+0.3	+0.6	+0.8	+0.6	+0.6	+0.4	+0.3	+0.7	-1.1

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	Mar. 1972	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	May 1971	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	Mar. 1972	May 1972 <sup>p</sup>	Apr. 1972 <sup>r</sup>	May 1971
	Total						Materials and supplies					
All manufacturing industries, total..	102,834	102,428	102,450	103,787	103,251	102,794	30,917	30,937	30,395	30,711	30,822	30,958
Durable goods industries, total.....	67,031	66,575	66,604	67,680	67,181	67,439	18,142	18,101	18,144	17,969	17,889	18,566
Stone, clay, and glass products.....	2,270	2,272	2,234	2,355	2,359	2,370	764	757	760	765	762	754
Primary metals.....	9,594	9,553	9,506	9,542	9,534	9,157	3,501	3,530	3,583	3,355	3,348	3,114
Machinery (electrical and nonelectrical).	23,395	23,278	23,228	23,808	23,535	24,156	5,844	5,803	5,786	5,876	5,813	5,953
Transportation equipment.....	15,709	15,536	15,553	15,644	15,625	15,586	2,781	2,778	2,774	2,744	2,781	3,356
All other durable goods industries.....	16,063	15,936	16,083	16,331	16,128	16,170	5,252	5,233	5,241	5,229	5,185	5,389
Nondurable goods industries, total.....	35,803	35,853	35,846	36,107	36,070	35,355	12,775	12,836	12,791	12,742	12,933	12,392
Chemicals and allied products.....	6,679	6,648	6,691	6,705	6,728	6,781	2,124	2,165	2,188	2,120	2,176	2,245
Petroleum and coal products.....	2,216	2,199	2,185	2,201	2,168	2,213	512	503	504	519	506	498
Rubber and plastics products, n.e.c.....	2,276	2,230	2,199	2,283	2,273	2,130	672	667	665	665	656	651
All other nondurable goods industries....	24,632	24,776	24,771	24,918	24,901	24,231	9,467	9,501	9,434	9,438	9,595	8,998
	Work in process						Finished goods					
All manufacturing industries, total..	36,268	36,068	36,153	36,501	36,288	35,646	35,649	35,423	35,362	36,575	36,141	36,190
Durable goods industries, total.....	31,034	30,794	30,786	31,182	31,019	30,486	17,855	17,680	17,674	18,529	18,273	18,387
Stone, clay, and glass products.....	299	317	295	310	338	346	1,207	1,198	1,179	1,280	1,259	1,270
Primary metals.....	3,162	3,133	3,060	3,161	3,168	3,039	2,931	2,890	2,863	3,026	3,018	3,004
Machinery (electrical and nonelectrical).	10,504	10,461	10,442	10,605	10,524	10,875	7,047	7,014	7,000	7,327	7,198	7,328
Transportation equipment.....	11,462	11,328	11,348	11,428	11,385	10,713	1,466	1,430	1,431	1,472	1,459	1,517
All other durable goods industries.....	5,607	5,555	5,641	5,678	5,604	5,513	5,204	5,148	5,201	5,424	5,339	5,268
Nondurable goods industries, total.....	5,234	5,274	5,367	5,319	5,269	5,160	17,794	17,743	17,688	18,046	17,868	17,803
Chemicals and allied products.....	863	871	885	868	871	880	3,692	3,612	3,618	3,717	3,681	3,656
Petroleum and coal products.....	486	478	479	493	475	489	1,218	1,218	1,202	1,189	1,187	1,226
Rubber and plastics products, n.e.c.....	362	353	348	357	348	335	1,242	1,210	1,186	1,261	1,269	1,144
All other nondurable goods industries....	3,523	3,572	3,655	3,601	3,575	3,456	11,642	11,703	11,682	11,879	11,731	11,777

<sup>p</sup>Preliminary.<sup>r</sup>Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP  
(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio <sup>1</sup> (months' backlog)			
	May 1972 <sup>P</sup>	Apr. 1972 <sup>F</sup>	Mar. 1972	May 1971	May 1972 <sup>P</sup>	Apr. 1972 <sup>F</sup>	Mar. 1972	May 1971
All manufacturing industries, total.....	1.69	1.69	1.71	1.85	2.03	2.05	2.07	2.20
Durable goods industries, total.....	2.01	2.01	2.07	2.26	2.41	2.43	2.48	2.63
Stone, clay, and glass products.....	1.09	1.18	1.13	1.41	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.93	1.90	1.93	1.81	1.36	1.26	1.29	1.31
Fabricated metals.....	2.10	2.07	2.19	2.31	3.22	3.23	3.34	3.46
Machinery, except electrical.....	2.40	2.41	2.51	2.90	2.37	2.37	2.45	2.56
Electrical machinery.....	2.14	2.07	2.10	2.40	3.04	2.93	2.97	3.33
Transportation equipment.....	2.10	2.10	2.19	2.40	4.39	4.59	4.71	4.84
Instruments and related products.....	2.51	2.40	2.52	2.46	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.30	1.30	1.30	1.38	0.47	0.47	0.46	0.44
Food and kindred products.....	0.99	1.01	1.00	1.05	(X)	(X)	(X)	(X)
Tobacco products.....	4.37	4.51	4.32	4.53	(X)	(X)	(X)	(X)
Textile mill products.....	1.64	1.62	1.60	1.77	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.18	1.17	1.19	1.31	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.46	1.42	1.43	1.57	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.98	0.93	0.94	1.05	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.56	1.52	1.49	1.55	(X)	(X)	(X)	(X)

(NA) Not available. <sup>P</sup>Preliminary. <sup>F</sup>Revised. (X) Not applicable.

<sup>1</sup>Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

## Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

### DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

### EXPLANATION OF TERMS

**Value of Shipments**--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

**Inventories--**End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

### **New Orders Received and Unfilled Orders--**

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.